

CLAIMS

1. A highlighter ink composition, comprising:
 - a) an acid buffer having a pKa from about 2 to about 6;
 - 5 b) a highlighter colorant; and
 - c) a liquid vehicle.
2. The composition of claim 1, wherein said acid buffer is selected from the group consisting of succinic acid, citric acid, glutaric acid, acetic acid, beta-10 alanine, aspartic acid, ascorbic acid, and mixtures thereof.
3. The composition of claim 2, wherein said acid buffer is succinic acid.
4. The composition of claim 1, wherein said acid buffer has a pKa from 15 about 4 to about 6.
5. The composition of claim 1, wherein said acid buffer comprises from about 0.5 wt% to about 10 wt% of the composition.
- 20 6. The composition of claim 5, wherein said acid buffer comprises from about 2 wt% to about 3 wt% of the composition.
7. The composition of claim 1, wherein said highlighter colorant is selected from the group consisting of Basic Yellow 40, Acid Yellow 23, Acid Red 25 52, Acid Blue 9, and mixtures thereof.
8. The composition of claim 1, wherein said highlighter colorant is an acid-functionalized pigment.
- 30 9. The composition of claim 1, wherein said highlighter colorant is a fluorescent colorant.

10. The composition of claim 1, wherein said highlighter colorant comprises from about 0.5 wt% to about 20 wt% of the composition.

11. The composition of claim 10, wherein said highlighter colorant 5 comprises from about 1 wt% to about 10 wt% of the composition.

12. The composition of claim 1, wherein said liquid vehicle comprises a member selected from the group consisting of water, diethylene glycol, polyethylene glycol, glycerol, dipropylene glycol, propylene glycol, polypropylene 10 glycol, 2-pyrrolidinone, and mixtures thereof.

13. A method of reducing print smear during highlighting, comprising the steps of:

15 a) ink-jet printing an ink-jet ink to form an image on a substrate;
b) applying a highlighter composition to the image, said highlighter composition including an acid buffer having a pKa from about 2 to about 6, a highlighter colorant, and a liquid vehicle.

20 14. The method of claim 13, wherein said acid buffer is selected from the group consisting of succinic acid, citric acid, glutaric acid, acetic acid, beta-alanine, aspartic acid, ascorbic acid, and mixtures thereof.

15. The method of claim 14, wherein said acid buffer is succinic acid.

25 16. The method of claim 13, wherein said acid buffer has a pKa from about 4 to about 6.

30 17. The method of claim 13, wherein said highlighter colorant is selected from the group consisting of Basic Yellow 40, Acid Yellow 23, Acid Red 52, Acid Blue 9, and mixtures thereof.

18. The method of claim 13, wherein said acid buffer is configured for reducing mobility of colorants in the ink-jet ink upon contact therewith.

19. A smear resistant highlighter system, comprising:

5 a) an ink-jet ink printed on a substrate, said ink-jet ink comprising an ink-jet colorant; and

 b) a highlighter composition comprising an acid buffer having a pKa from about 2 to about 6, a highlighter colorant, and a liquid vehicle, wherein said acid buffer is configured for reducing mobility of the ink-jet colorant.

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20. The system of claim 19, wherein said acid buffer is selected from the group consisting of succinic acid, citric acid, glutaric acid, acetic acid, beta-alanine, aspartic acid, ascorbic acid, and mixtures thereof.

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21. The system of claim 20, wherein said acid buffer is succinic acid.

22. The system of claim 19, wherein said acid buffer has a pKa from about 4 to about 6.

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23. The system of claim 19, wherein said acid buffer comprises from about 0.5 wt% to about 10 wt% of the composition.

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24. The system of claim 23, wherein said acid buffer comprises from about 2 wt% to about 3 wt% of the composition.

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25. The system of claim 19, wherein said ink-jet colorant is selected from the group consisting of as inorganic pigment, organic pigment, anionic water-soluble dye, and mixtures thereof.

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26. The system of claim 19, wherein said liquid vehicle comprises a member selected from the group consisting of water, diethylene glycol,

polyethylene glycol, glycerol, dipropylene glycol, propylene glycol, polypropylene glycol, 2-pyrrolidinone, and mixtures thereof.